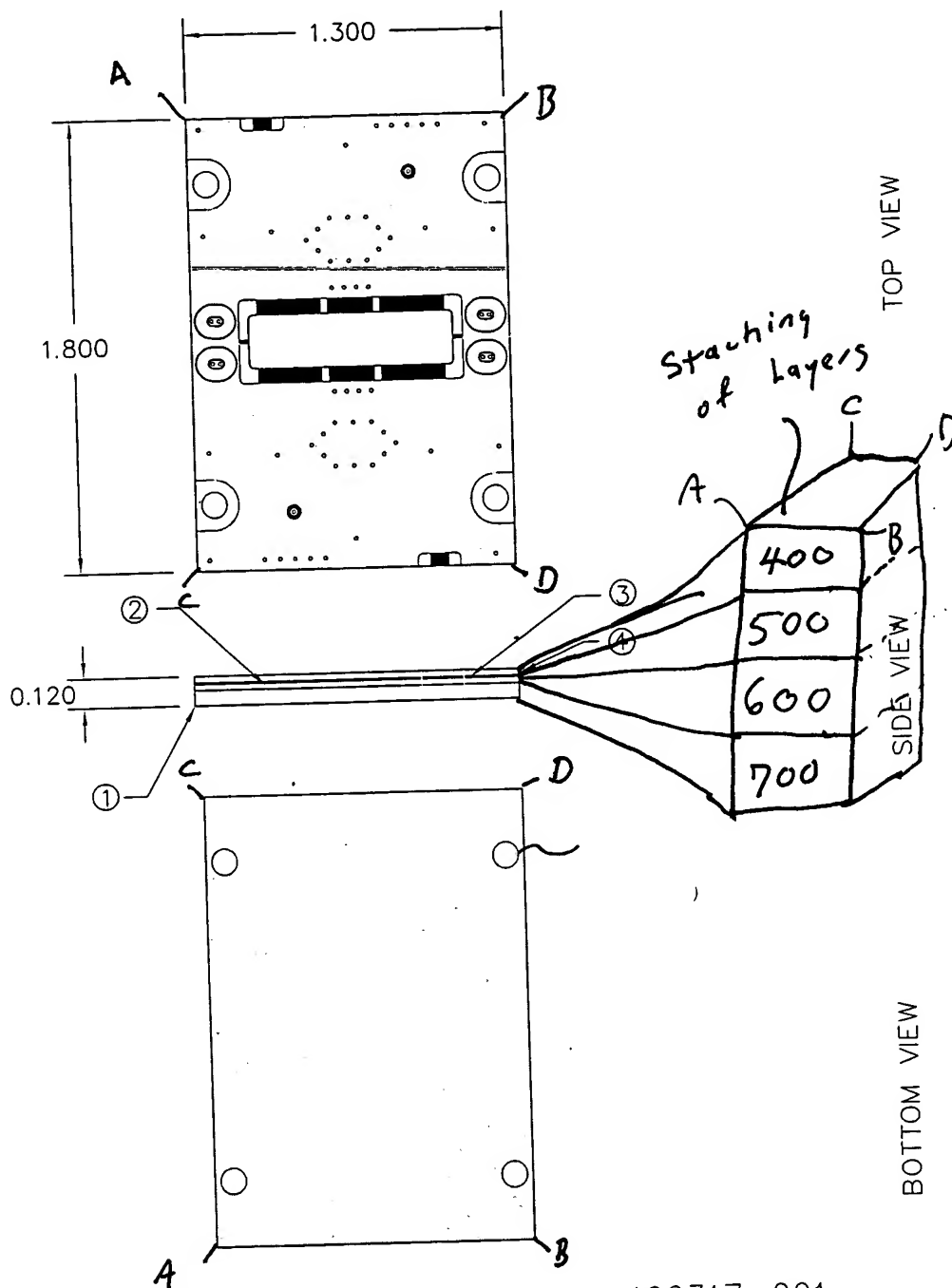


DRAWING NUMBER:
XMP402317

100



Top, Side, and Bottom View of Assembly 402317-001

Fig. 1

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41 FAIRFIELD PLACE, WEST CALDWELL, N.J. 07006, U.S.A.

SIZE
A

CODE IDENT. NO.
12457

DRAWING NO.
XMP402317

REV.
X2

SCALE: 1.5:1

SHEET: 2 of 9

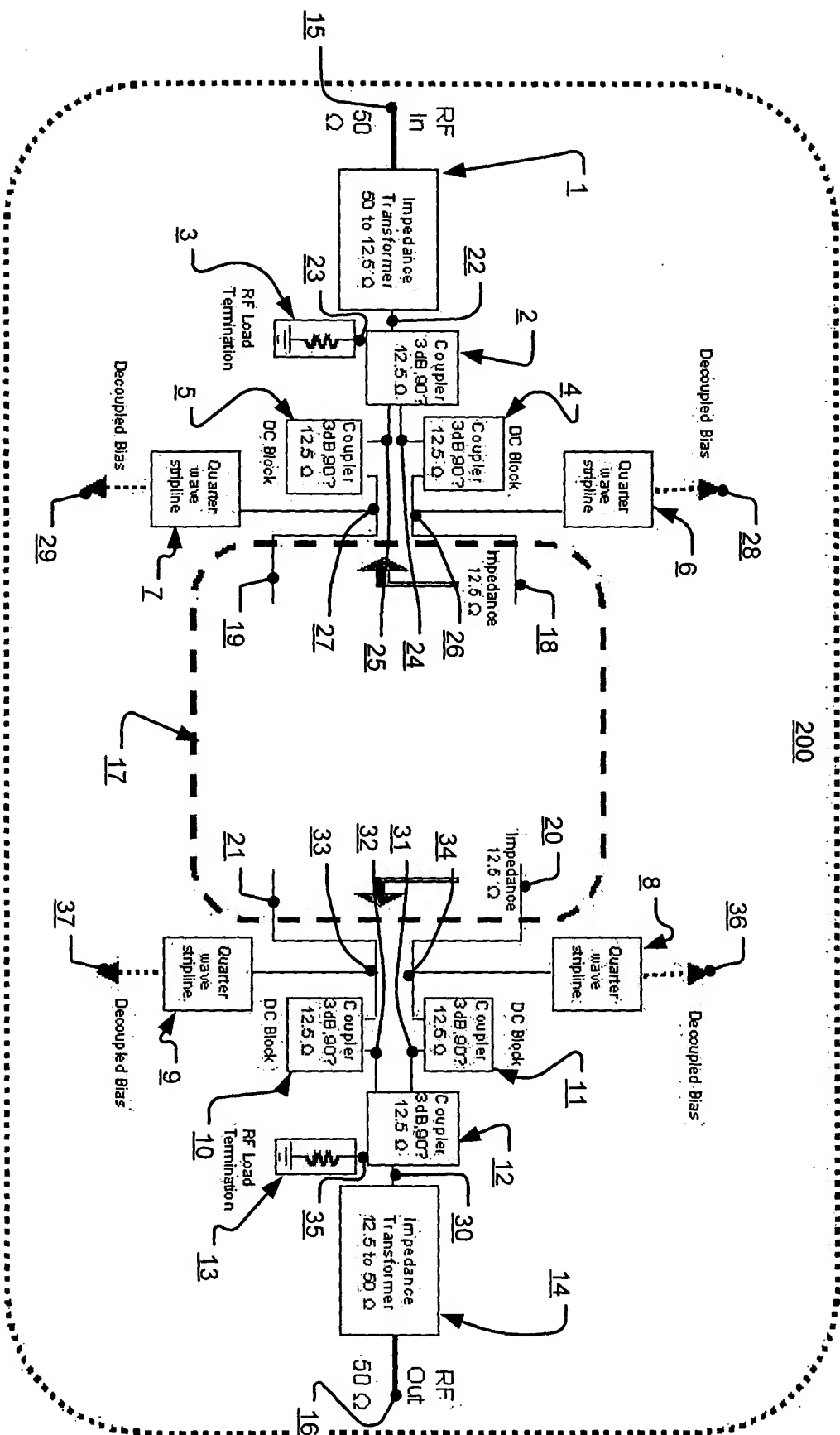


Fig. 2

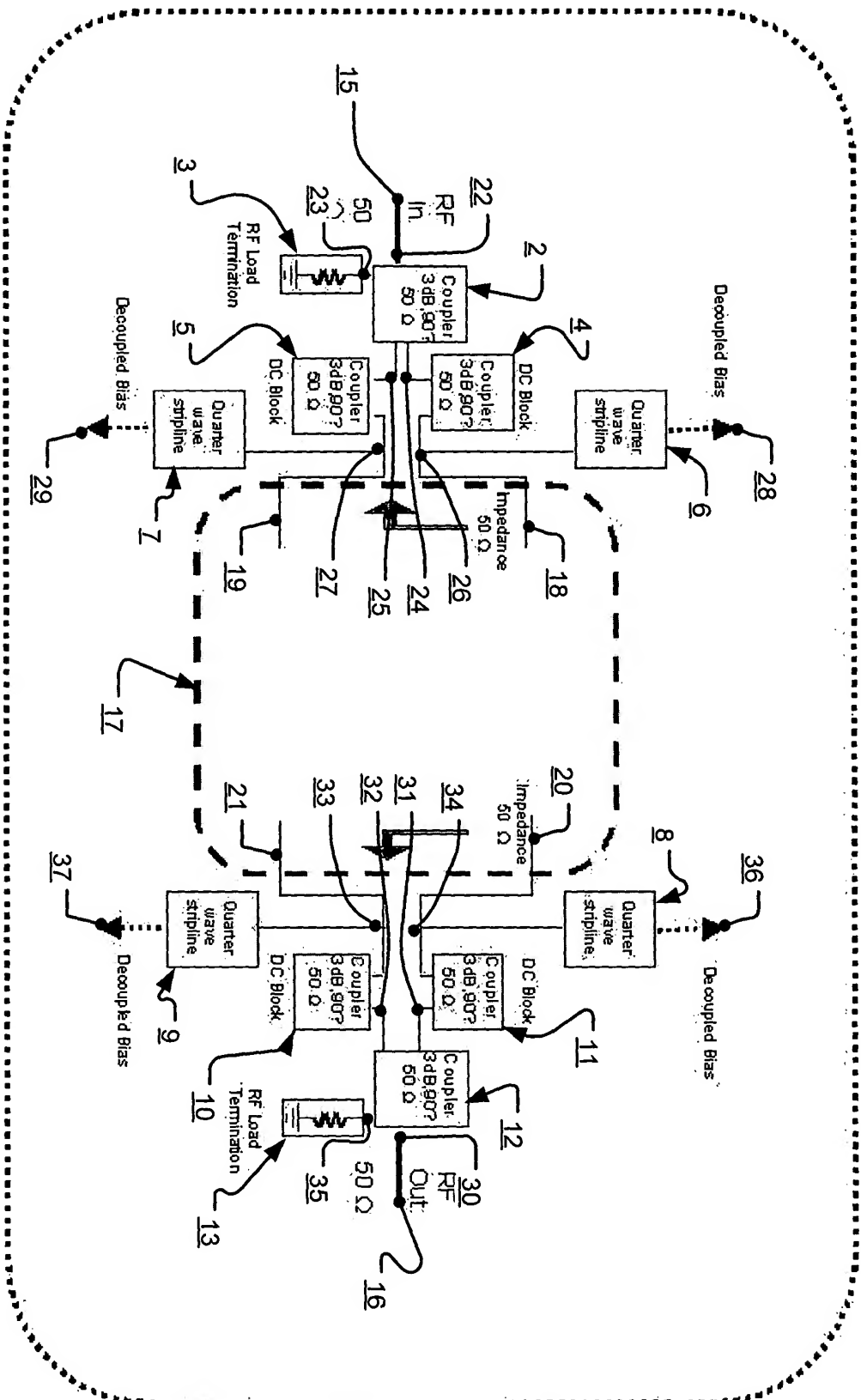
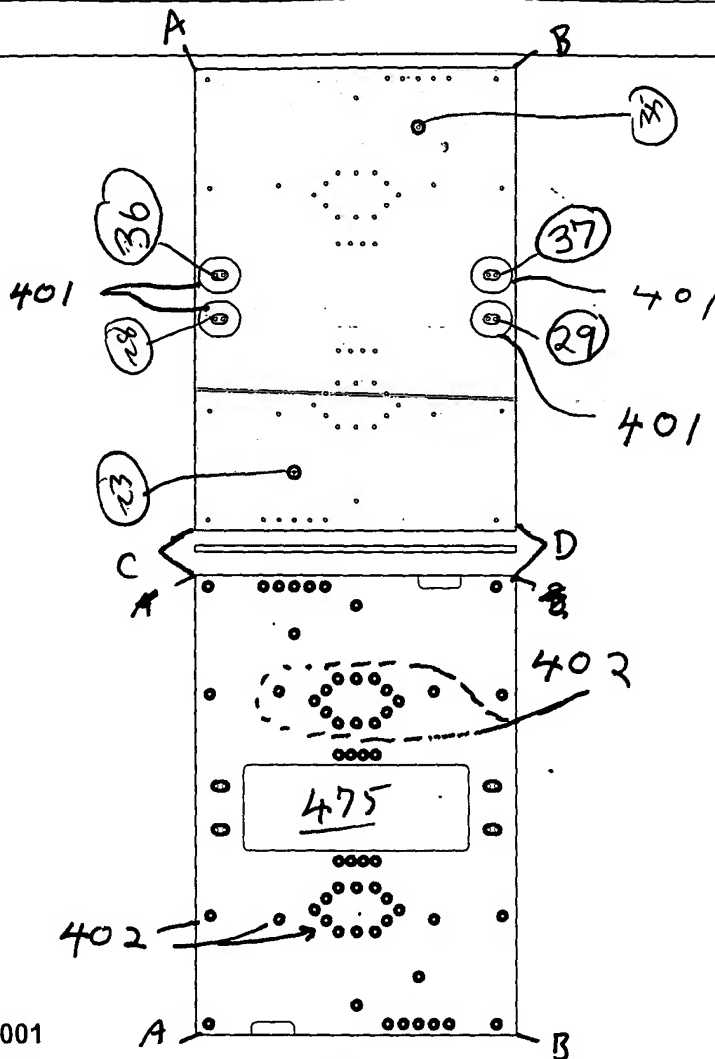


Fig. 3

DRAWING NUMBER:
XMP402317

400



TOP VIEW

SIDE VIEW

BOTTOM VIEW

Fig. 4

2. Panel 402318-001

2.1. Drill 66 holes $\varnothing.015$ thru all using machining file 402318F_rev1.dxf.

2.2 Plasma Etch per MMWI-1223

2.3. Plate Electroless Copper per MMWI-1039.

2.5. Laminate per MMWI-1201

2.6. Expose top and bottom sides of panel 402318-001 per MMWI-1204.

2.6.1 Use mask 402318MT-001_REV1 for top side.

2.6.2 Use mask 402318MB-001_REV2 for bottom side.

2.7. Develop per MMWI-1205.

2.4. Electrolytic Copper Plate per MMWI-1046

2.6. Electrolytic nickel/ Au plate (50 micro inches THK) per MMWI-1053.

2.9 Strip Photoresist per MMWI-1207

2.8. Etch Copper per MMWI-1211.

2.10. Clean Substrate prior to bonding per MMWI-1224.

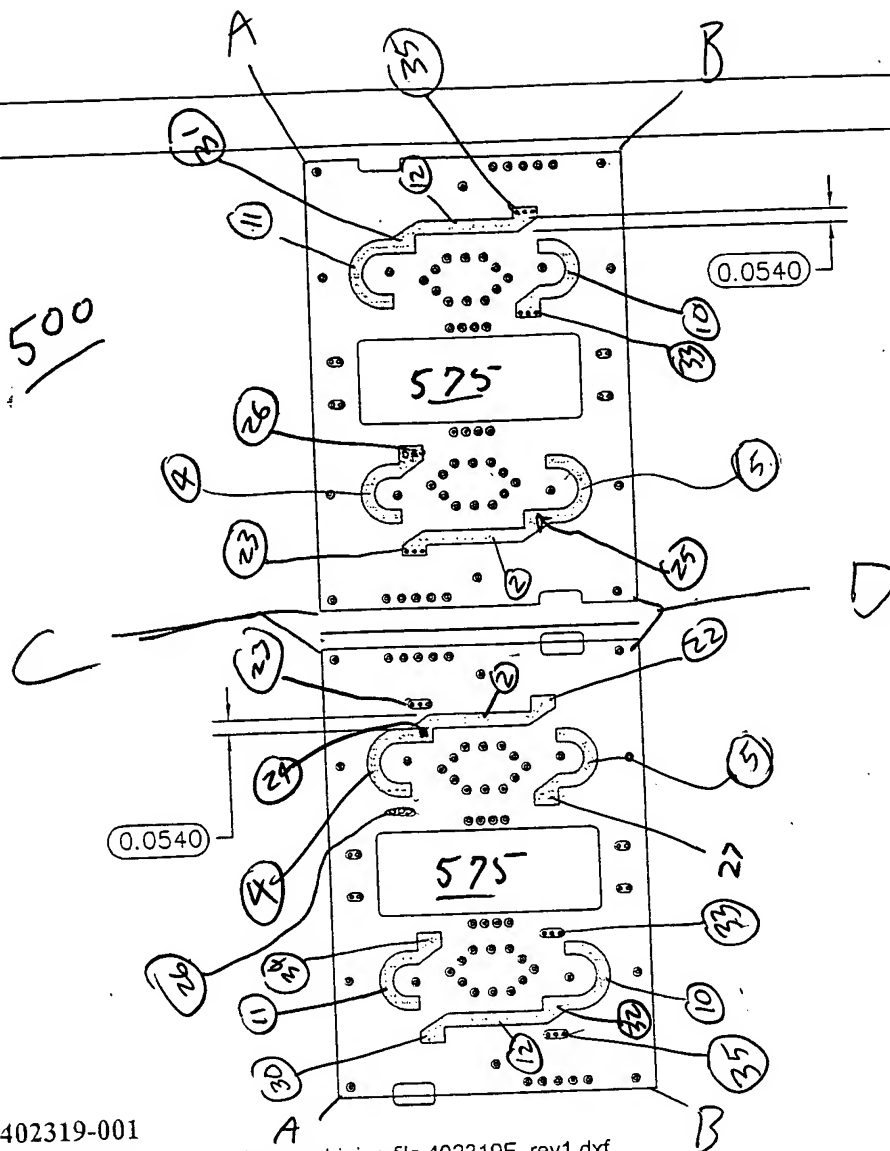
2.11. Vacuum Bake 150°C for 1 hour.

2.12. Mill 2 slots .174 X .085 $\varnothing.0355$, 1 slot .914 X .335 $\varnothing.0355$, all 3 from the bottom side .015 deep using machining file 402318F_rev1.dxf.

1	801640MMX-007	Rogers 3010, .025 THK, 1/2 oz CU	1
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SCALE: 1.5:1		SHEET: 4 of 9	

DRAWING NUMBER:
XMP402317

500



3. Panel 402319-001

3.1. Drill 73 holes $\varnothing.015$ thru all using machining file 402319F_rev1.dxf.

3.2 Plasma Etch per MMWI-1223

3.3 Plate Electroless Copper per MMWI-1039.

3.4 Electrolytic Copper Plate per MMWI-1046

3.5 Laminate per MMWI-1201

3.6 Expose top and bottom sides of panel 402319-001 per MMWI-1204.

3.6.1 Use mask 402319MT-001_REV1 for topside.

3.6.2 Use mask 402319MB-001_REV1 for bottom side.

3.7. Develop per MMWI-1205.

3.8. Etch Copper per MMWI-1211.

3.9. Strip Photoresist per MMWI-1207

3.10. Clean Substrate prior to bonding per MMWI-1224.

3.11 Vacuum Bake 150°C for 1 hour.

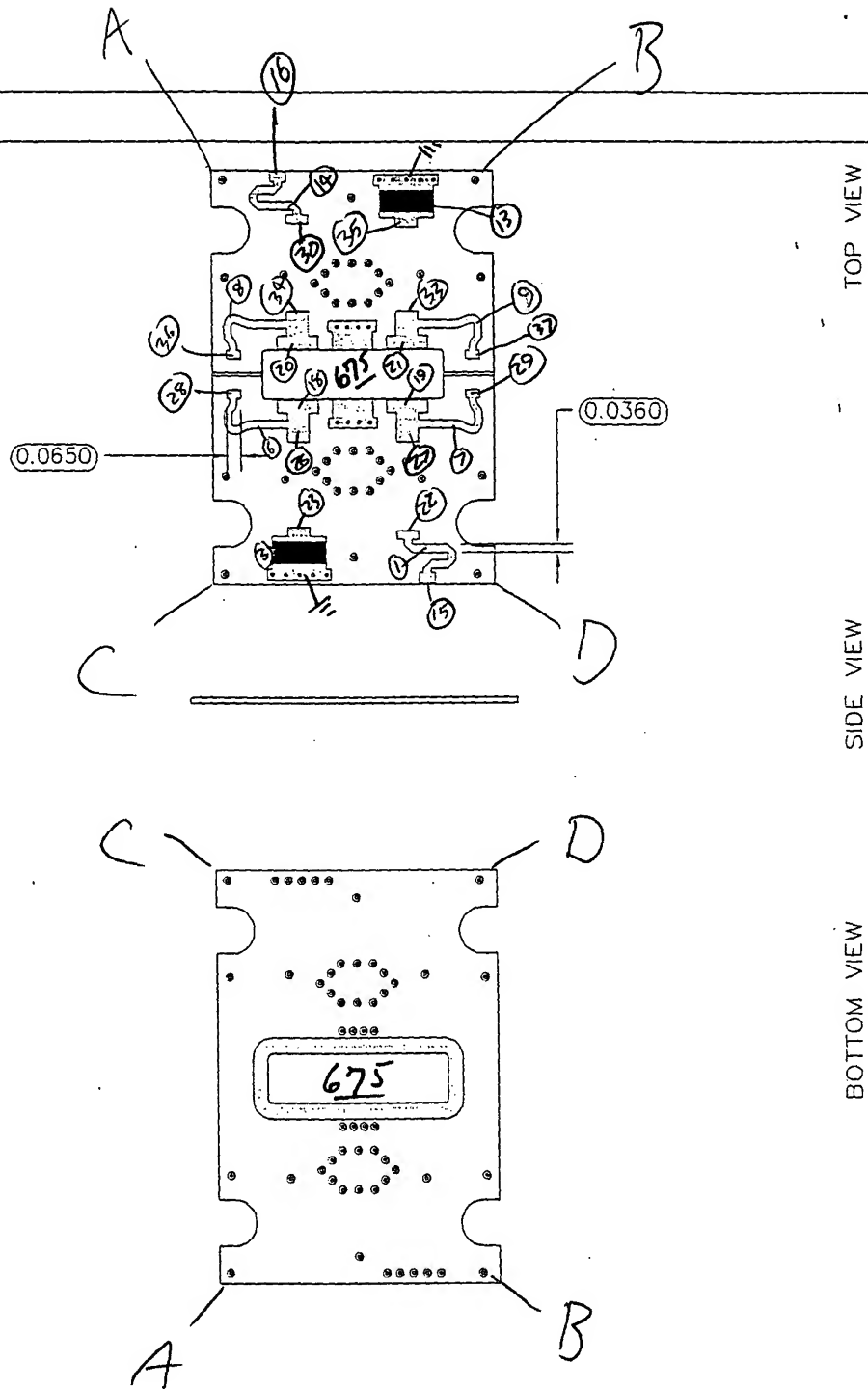
3.12. Inspect dimensions as shown per MMWI-5000.

3.13. Mill 2 slots .174 X .085 $\varnothing.0355$, 1 slot .914 X .335 $\varnothing.0355$, through all using machining file 402319F_rev1.dxf.

Fig. 5

1	801640MMX-005	Rogers 3010; .005 THK, 1/2 oz CU	1
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SIZE	CODE IDENT. NO.	DRAWING NO.	
A	12457	XMP402317	X1
SCALE:	1.5:1	SHEET:	5 of 9

DRAWING NUMBER:
XMP402317



TOP, SIDE, AND BOTTOM VIEW OF PANEL 402320-001

Fig. 6

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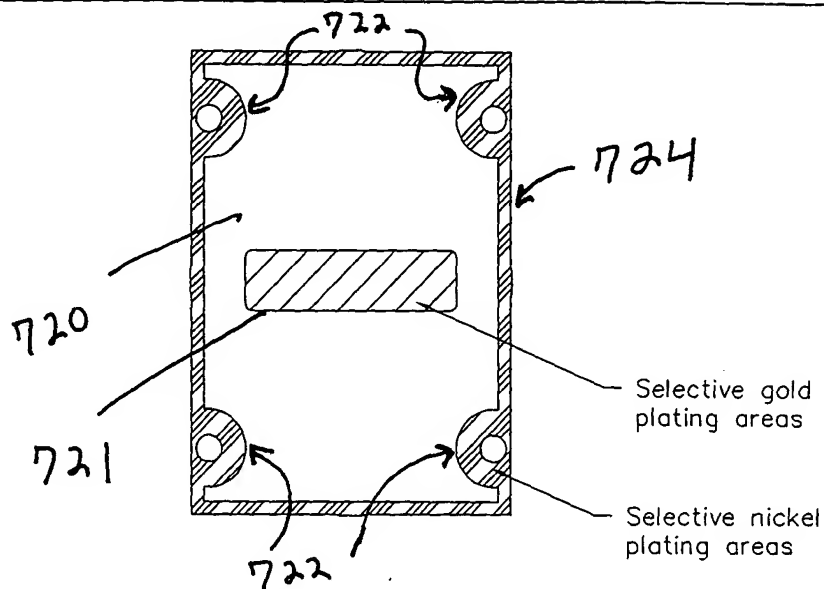
DRAWING NO.
XMP402317

REV.
X1

SCALE: 1.5:1

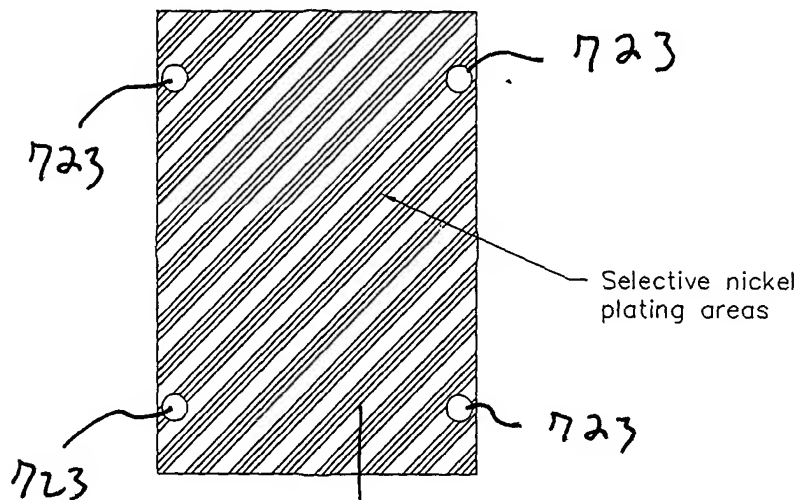
SHEET: 6 of 9

DRAWING NUMBER:
XMP402317



TOP VIEW

700



SIDE VIEW

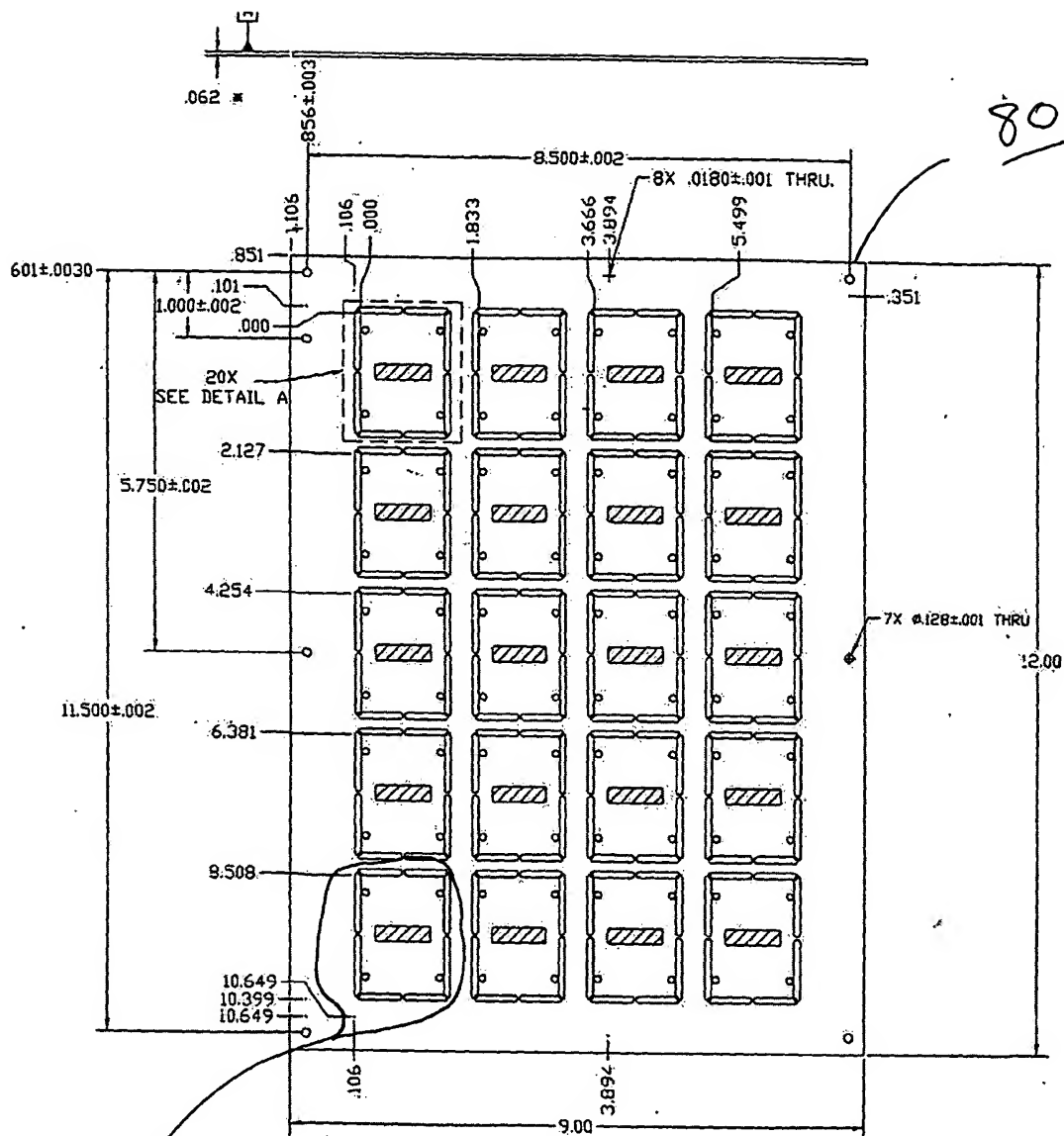
BOTTOM VIEW

5. Copper Alloy Plate 402321-001

(SEE DRAWING 402322 FOR INSTRUCTIONS)

Fig. 7

1	402322-001	Cu Alloy plate, .062 thk.	1
FIND NO.	PART NO.	DESCRIPTION	QTY
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SIZE	CODE IDENT. NO.	DRAWING NO.	REV.
A	12457	XMP402317	X2
SCALE:	1.5:1	SHEET:	8 of 9



one
module
of twenty
in panel

Fig. 8

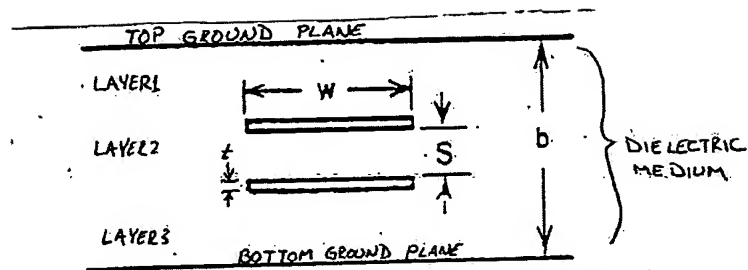


Fig. 9 End view of broadside coupled strip lines.

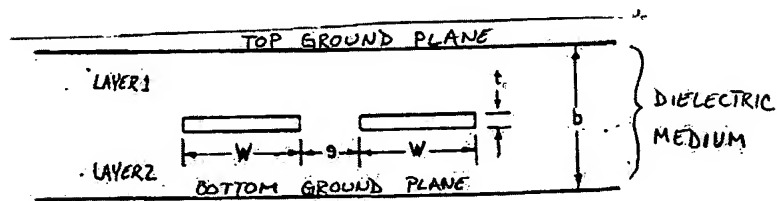


Fig. 10 End view of edge coupled strip lines.

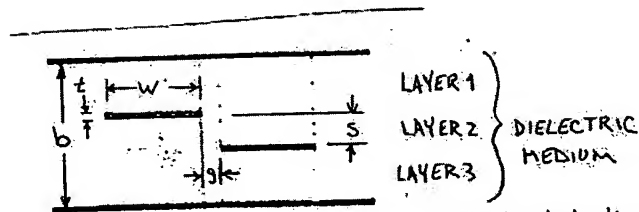


Fig. 11 End view of offset coupled strip line (with gap)

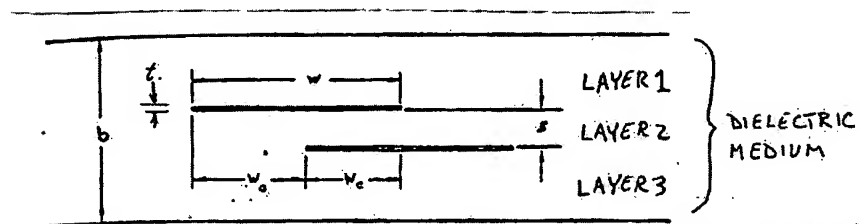


Fig. 12 End view of offset coupled strip line (with overlay)

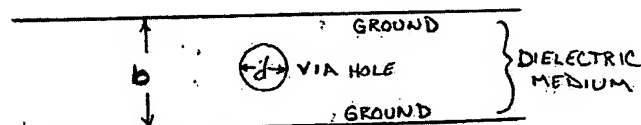


Fig. 13 TOP VIEW OF A SLAB LINE TRANSMISSION LINE

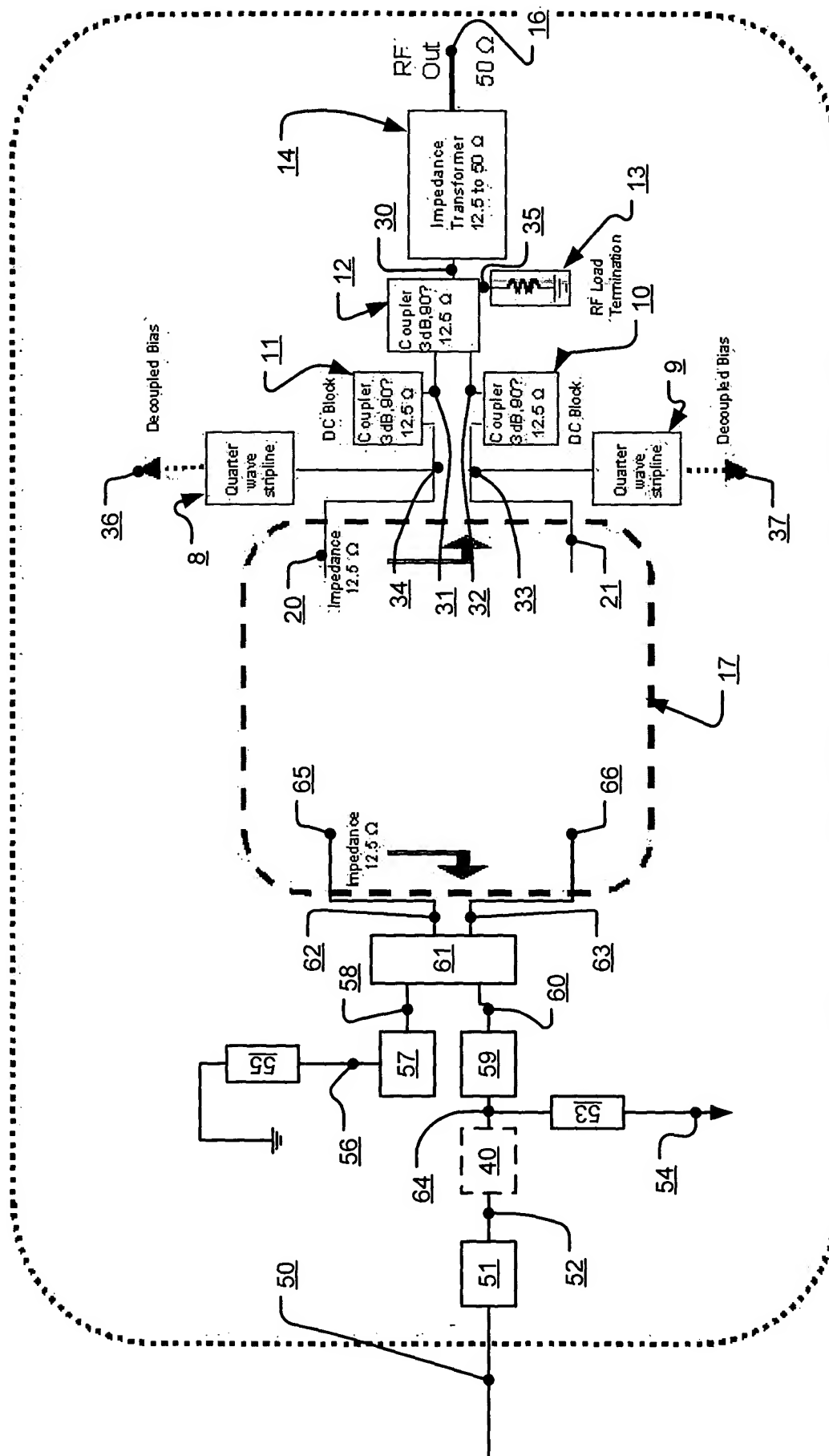
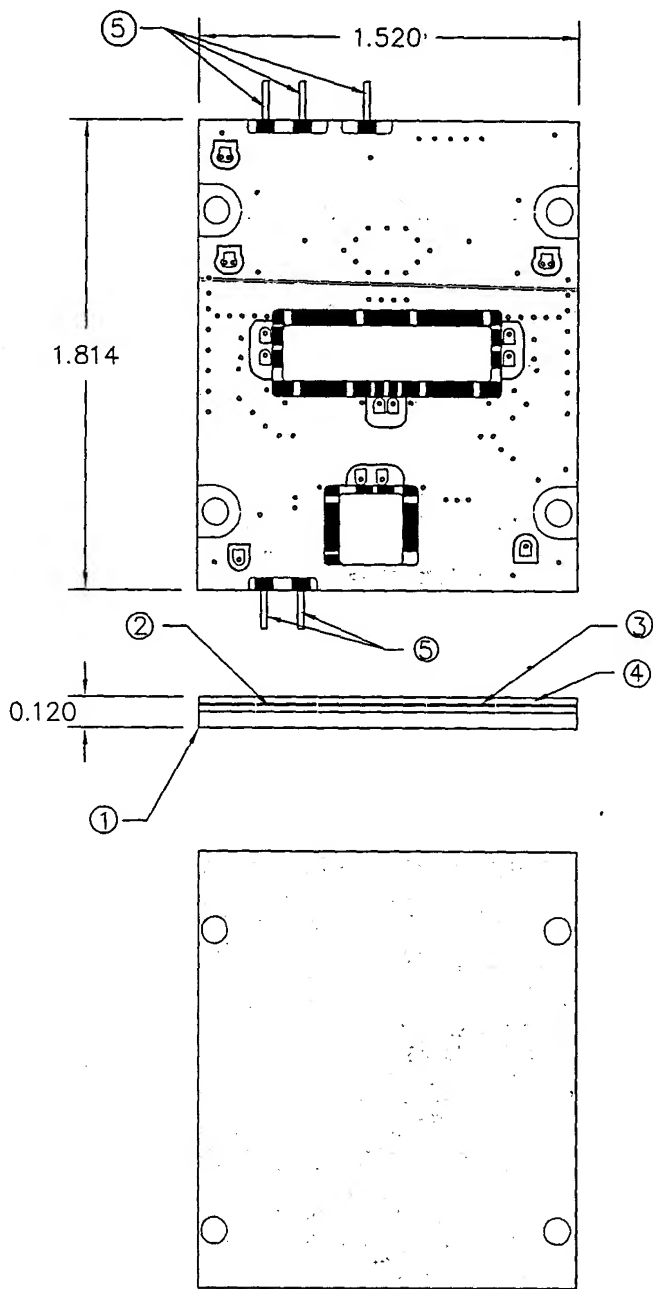


Fig. 14

DRAWING NUMBER:
XMP402219

1500



TOP VIEW

SIDE VIEW

BOTTOM VIEW

Top, Side, and Bottom View of Assembly 402219-001

Fig. 15

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12457

DRAWING NO.
XMP402219

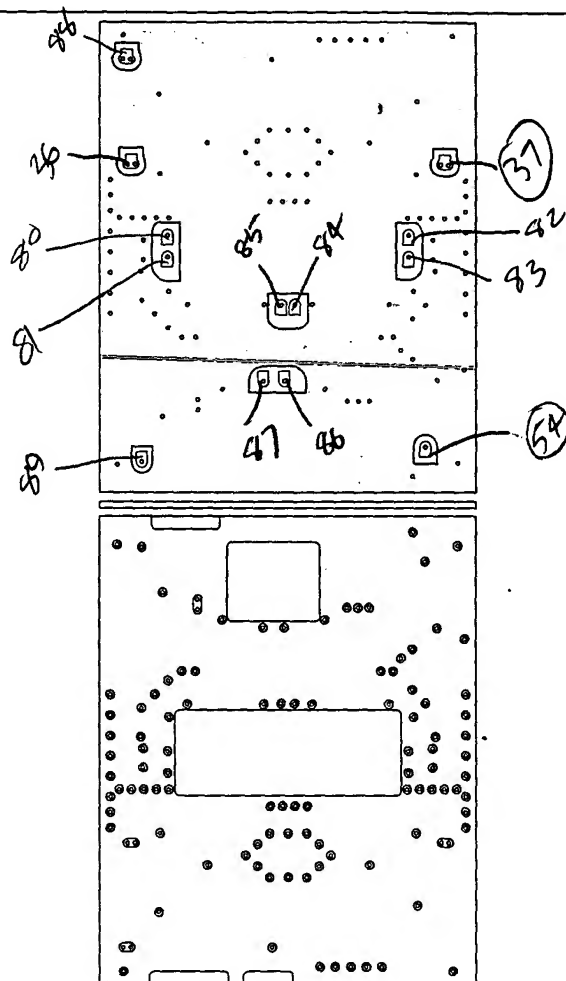
REV.
X3

SCALE: 1.5:1

SHEET: 2 of 9

DRAWING NUMBER:
XMP402219

1600



TOP VIEW

SIDE VIEW

BOTTOM VIEW

2. Panel 402221-001

2.1. Drill 108 holes $\varnothing.015$ thru all using machining file 402221F_REV2.dxf.

2.2 Plasma Etch per MMWI-1223

2.3. Plate Electroless Copper per MMWI-1039.

2.5. Laminate per MMWI-1201

2.6. Expose top and bottom sides of panel 402221-001 per MMWI-1204.

2.6.1 Use mask 402221MT-001_REV2 for top side.

2.6.2 Use mask 402221MB-001_REV2 for bottom side.

2.7. Develop per MMWI-1205.

2.4. Electrolytic Copper Plate per MMWI-1046

2.6. Electrolytic nickel/ Au plate (50 micro inches THK) per MMWI-1053.

2.9 Strip Photoresist per MMWI-1207

2.8. Etch Copper per MMWI-1211.

2.10. Clean Substrate prior to bonding per MMWI-1224.

2.11. Vacuum Bake 150°C for 1 hour.

2.12. Mill 1 slots .320 X .085 $\varnothing.0355$, 1 slot .275 X .085 $\varnothing.0355$, 1 slot .200 X .085 $\varnothing.0355$, 1 slot .914 X .335, $\varnothing.0355$, and 1 slot .305 X .375, $\varnothing.0355$ all 5 from the bottom side .015 deep using machining file 402221F_rev2.dxf.

Fig. 16

1	801640MMX-007	Rogers 3010, .025 THK, 1/2 oz CU	1
FIND.NO.	PART NO.	DESCRIPTION	QTY
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SCALE: 1.5:1		SHEET: 4 of 9	

DRAWING NUMBER:
XMP402219

1700

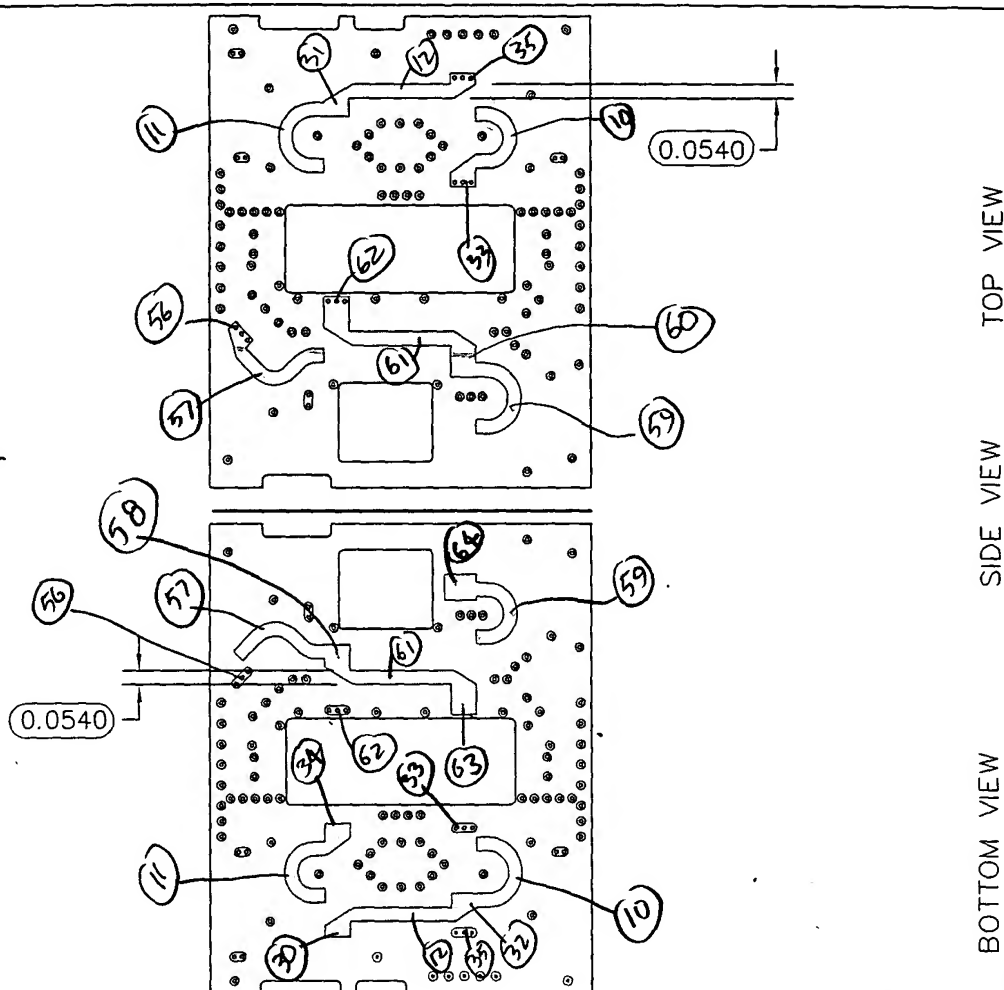


Fig. 17

3. Panel 402222-001

3.1. Drill 110 holes $\varnothing.015$ thru all using machining file 402222F_rev2.dxf.

3.2 Plasma Etch per MMWI-1223

3.3 Plate Electroless Copper per MMWI-1039.

3.4 Electrolytic Copper Plate per MMWI-1046

3.5 Laminate per MMWI-1201

3.6 Expose top and bottom sides of panel 402222-001 per MMWI-1204.

3.6.1 Use mask 402222MT-001_REV2 for topside.

3.6.2 Use mask 402222MB-001_REV2 for bottom side.

3.7. Develop per MMWI-1205.

3.8. Etch Copper per MMWI-1211.

3.9. Strip Photoresist per MMWI-1207

3.10. Clean Substrate prior to bonding per MMWI-1224.

3.11 Vacuum Bake 150°C for 1 hour.

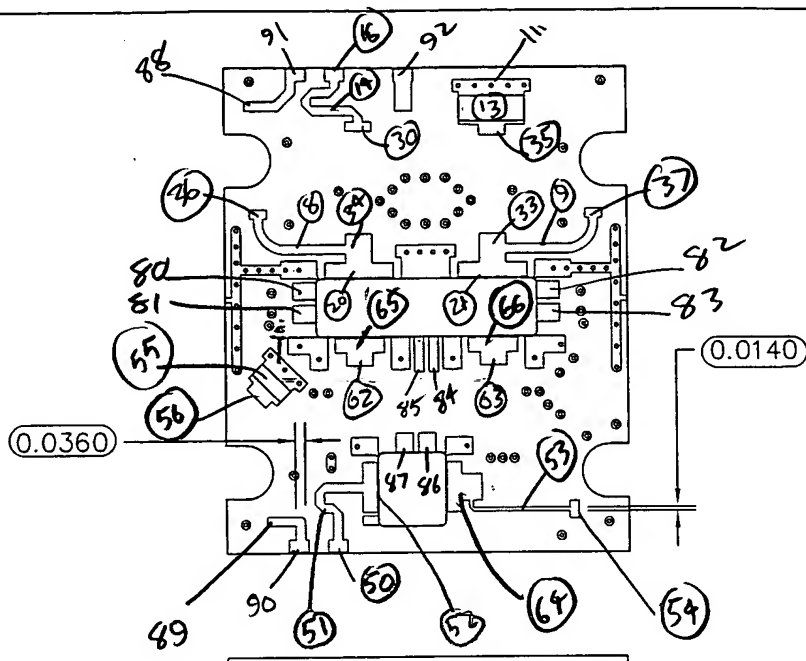
3.12. Inspect dimensions as shown per MMWI-5000.

3.13. Mill 1 slots .320 X .085 $\varnothing.0355$, 1 slots .275 X .085 $\varnothing.0355$, 1 slots .200 X .085 $\varnothing.0355$,

1 slot .914 X .335, $\varnothing.0355$, and 1 slot .305 X .375, $\varnothing.0355$ through all using machining file 402222F_rev2.dxf.

.1	801640MMX-005	Rogers 3010, .005 THK, 1/2 oz CU	1
FIND NO.	PART NO.	DESCRIPTION	QTY
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SCALE: 1.5:1		SHEET: 5 of 9	

DRAWING NUMBER:
XMP402219

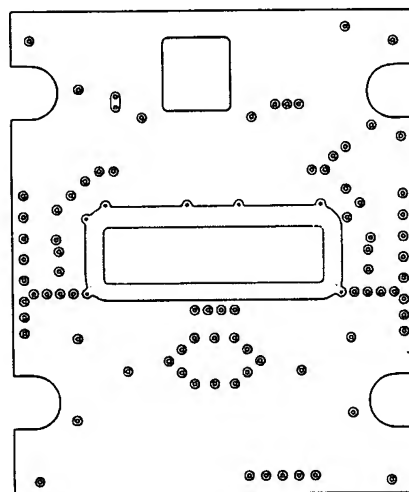


TOP VIEW

SIDE VIEW

BOTTOM VIEW

1800



TOP, SIDE, AND BOTTOM VIEW OF PANEL 402223-001

Fig. 18

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SIZE
A

CODE IDENT. NO.
12457

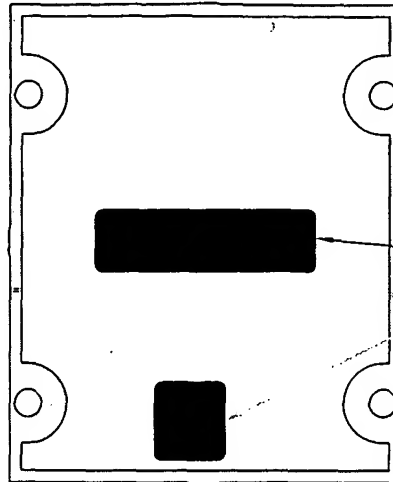
DRAWING NO.
XMP402219

REV.
X3

SCALE: 1.5:1

SHEET: 6 of 9

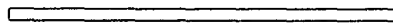
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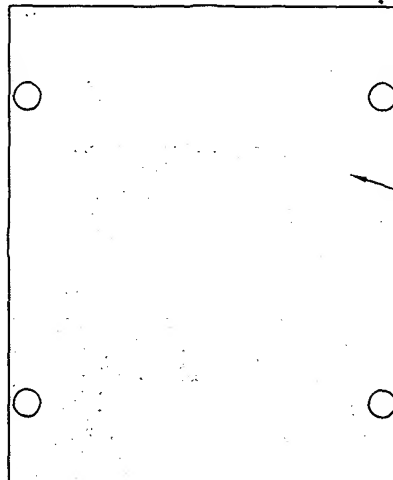
Selective nickel
plating area

Selective gold
plating area

TOP VIEW



SIDE VIEW



Selective nickel
plating area

BOTTOM VIEW

1900

5. Copper Alloy Plate 402224-001

(SEE DRAWING 402301 FOR INSTRUCTIONS)

Fig. 19

1	402301-001	Cu Alloy plate, .062 thk.	1
FIND NO.	PART NO.	DESCRIPTION	QTY
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SIZE A		CODE IDENT. NO. 12457	DRAWING NO. XMP402219
SCALE: 1.5:1		REV. X3	
		SHEET: 8 of 9	